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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/857,120

09/28/2001

Foo Yuen Leong

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9637

7590

12/17/2004

Seed Intellectual Property Low Group  
701 5th Avenue Suite 6300  
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EXAMINER

KNEPPER, DAVID D

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/857,120

**Applicant(s)**

LEONG, FOO YUEN

**Examiner**

David D. Knepper

**Art Unit**

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 Jul & 28 Sep 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>27 JUL 2001</u> | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's correspondence filed on 27 July 2001 (IDS) and 28 Sep 2001 (claim amendments) has been received and considered. Claims 1-11 are pending.

### **Drawings**

2. The drawings are objected to because the figure should be labeled as "Prior Art". No reference numerals are used for reference from the specification. The figure provided by the applicant is clearly a copy from CCITT G.726 (dated 1990). The invention (i.e. – the "multiplier") must be illustrated without adding new matter.

Correction is required.

### **Priority Claims**

3. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).

### **Claims**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. § 103 as being unpatentable over Matsumura (Ref. AP, VLSI DSP (MB8764) Based Adaptive Speech CODEC) in view of Owen (4,876,660).

As per claims 1 and 5, the only difference over the defined CCITT G.721 standard ADPCM CODEC is “performing multiplication in fixed point format between the respective said predictor coefficients and the quantized difference signal values...summing the double word length”. This is suggested by Matsumura’s DSP on page 1121 and also on page 1124, item 7 which use fixed point formats to perform computations on 16 bit data elements. One of pedestrian knowledge computers would know that a 16 x 16 multiplier-accumulator would create a product with 32 bits. This mathematical knowledge for such computations is less than ordinary skill in the art.

It is noted that Matsumura does not explicitly teach a “double word length”. However, he teaches that it is well known to perform fixed-point multiplication to implement ADPCM. Owen teaches details regarding the hardware implementation of the mathematics noted above. See, for example, Owen, , col. 2, lines 1-5 that explicitly teaches that it is known “In a 16 x 16 multiplier-accumulator, the product contains thirty-two bits.” It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to perform fixed bit multiplication as claimed because Owen explicitly teaches that this is a well-known manner to perform such mathematical operations using standard computer technology.

**Prior Art**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A few pages of CCITT G.726 are cited to show that the applicant's figure is "Prior Art" and should be labeled as such.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

TC2600 Fax Center  
(703) 872-9314

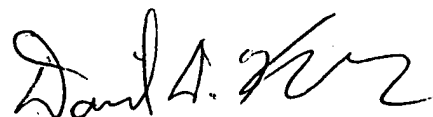
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644.

The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service whose telephone number is (703) 306-0377.



David D. Knepper  
Primary Examiner  
Art Unit 2654